Mr. Kenneth Garland Creative Wood Products, Inc. Post Office Box 112 712 North Bowen Avenue Bremen, Indiana 46506

Re: 099-12557

Significant Source Modification to: Part 70 permit No: 099-7526-00047

#### Dear Mr. Garland:

Creative Wood Products, Inc., was issued a Part 70 permit 099-7526-00047 on September 24, 1998 for a kitchen cabinetry coating operation. An appliction to modify the source was received on August 7, 2000. Pursuant to 326 IAC 2-7-10.5 the following emission units are approved for construction at the source:

- (a) One (1) surface coating booth, identified as PB2, having a maximum throughput of 3 units per day, application method is HVLP, using dry filters as control, and exhausting to stack S2.
- (b) One (1) surface coating booth, identified as PB3, having a maximum throughput of 3 units per day, application method is HVLP, using dry filters as control, and exhausting to stack S3.
- (c) One (1) surface coating booth, identified as PB4, having a maximum throughput of 3 units per day, application method is HVLP, using dry filters as control, and exhausting to stack SNEW4.
- (d) One (1) surface coating booth, identified as PB5, having a maximum throughput of 3 units per day, application method is HVLP, using dry filters as control, and exhausting to stack S5.
- (e) One (1) surface coating booth, identified as PB6, having a maximum throughput of 3 units per day, application method is HVLP, using dry filters as control, and exhausting to stack S6.

The following construction conditions are applicable to the proposed project:

#### **General Construction Conditions**

 The data and information supplied with the application shall be considered part of this source modification approval. Prior to <u>any</u> proposed change in construction which may affect the potential to emit (PTE) of the proposed project, the change must be approved by the Office of Air Management (OAM). Creative Wood Products, Inc.

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2. This approval to construct does not relieve the permittee of the responsibility to comply with the provisions of the Indiana Environmental Management Law (IC 13-11 through 13-20; 13-22 through 13-25; and 13-30), the Air Pollution Control Law (IC 13-17) and the rules promulgated thereunder, as well as other applicable local, state, and federal requirements.

- 3. <u>Effective Date of the Permit</u>
  Pursuant to IC 13-15-5-3, this approval becomes effective upon its issuance.
- 4. Pursuant to 326 IAC 2-1.1-9 and 326 IAC 2-7-10.5(I), the Commissioner may revoke this approval if construction is not commenced within eighteen (18) months after receipt of this approval or if construction is suspended for a continuous period of one (1) year or more.
- 5. All requirements and conditions of this construction approval shall remain in effect unless modified in a manner consistent with procedures established pursuant to 326 IAC 2.
- 6. Pursuant to 326 IAC 2-7-10.5(I) the emission units constructed under this approval shall <a href="not">not</a> be placed into operation prior to revision of the source's Part 70 Operating Permit to incorporate the required operation conditions.

The proposed operating conditions applicable to these emission units are attached to this Source Modification approval. These proposed operating conditions shall be incorporated into the Part 70 operating permit as an administrative amendment in accordance with 326 IAC 2-7-10.5(I)(1) and 326 IAC 2-7-11.

This decision is subject to the Indiana Administrative Orders and Procedures Act - IC 4-21.5-3-5. Pursuant to Contract No. A305-0-00-36, IDEM, OAM has assigned the processing of this application to Eastern Research Group, Inc., (ERG). Therefore, questions should be directed to Mike Pring, ERG, P.O. Box 2010, Morrisville, North Carolina 27560, or call (919) 468-7840 to speak directly to Mr. Pring. Questions may also be directed to Duane Van Laningham at IDEM, OAM, 100 North Senate Avenue, P.O. Box 6015, Indianapolis, Indiana, 46206-6015, or call (800) 451-6027, press 0 and ask for Duane Van Laningham, or extension 3-6878, or dial (317) 233-6878.

Sincerely,

Paul Dubenetzky, Chief Permits Branch Office of Air Management

Attachments

#### ERG/MP

cc: File - Marshall County U.S. EPA, Region V

Marshall County Health Department
Air Compliance Section Inspector - Paul Karkiewicz
Compliance Data Section - Jerry Curless
Administrative and Development - Janet Mobley
Technical Support and Modeling - Michele Boner



## INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We make Indiana a cleaner, healthier place to live

Frank O'Bannon Governor

Lori F. Kaplan Commissioner 100 North Senate Avenue P.O. Box 6015 Indianapolis, Indiana 46206-6015 (317) 232-8603 (800) 451-6027 www.state.in.us/idem

# PART 70 SIGNIFICANT SOURCE MODIFICATION OFFICE OF AIR MANAGEMENT

### Creative Wood Products, Inc 712 North Bowen Avenue Bremen, Indiana 46506

(herein known as the Permittee) is hereby authorized to construct and operate subject to the conditions contained herein, the emission units described in Section A (Source Summary) of this approval.

This approval is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-7 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17.

| Source Modification No.: 099-12557-00047   |                                 |
|--|---------------------------------|
| Issued by: / and / when the Paul Dubenetzky, Branch Chief Office of Air Management | Issuance Date: December 6, 2000 |

Significant Source Modification: 099-12557

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#### **SECTION D.1**

#### **FACILITY OPERATION CONDITIONS**

#### Facility Description [326 IAC 2-7-5(15)]

- One (1) surface coating booth, identified as booth four (4), making repairs with one (1) HVLP spray (1) gun and exhausting to stack S4.
- (2) Two (2) surface coating booths, identified as booths 1 and 2, having a maximum throughput of 3 units per hour, application method is air assisted, and exhausting to a stack.
- (3)One (1) surface coating booth, identified as PB2, having a maximum throughput of 3 units per day, application method is HVLP, using dry filters as control, and exhausting to stack S2.
- (4) One (1) surface coating booth, identified as PB3, having a maximum throughput of 3 units per day, application method is HVLP, using dry filters as control, and exhausting to stack S3.
- One (1) surface coating booth, identified as PB4, having a maximum throughput of 3 units per day, (5) application method is HVLP, using dry filters as control, and exhausting to stack SNEW4.
- One (1) surface coating booth, identified as PB5, having a maximum throughput of 3 units per day, (6)application method is HVLP, using dry filters as control, and exhausting to stack S5.
- One (1) surface coating booth, identified as PB6, having a maximum throughput of 3 units per day, (7) application method is HVLP, using dry filters as control, and exhausting to stack S6.

### Emissions Limitations and Standards [326 IAC 2-7-5(1)]

#### Volatile Organic Compounds (VOC) [326 IAC 8-2-12]

Pursuant to 326 IAC 8-2-12 (Wood Furniture and Cabinet Coating), the surface coating applied to wood furniture and cabinets shall utilize one of the following application methods:

Airless Spray Application Air Assisted Airless Spray Application **Electrostatic Spray Application** Electrostatic Bell or Disc Application Heated Airless Spray Application Roller Coating Brush or Wipe Application Dip-and-Drain Application

(b) High Volume Low Pressure (HVLP) Spray Application is an accepted alternative method of application for Air Assisted Airless Spray Application. HVLP spray is the technology used to apply coating to substrate by means of coating application equipment which operates between one-tenth (0.1) and ten (10) pounds per square inch gauge (psig) air pressure measured dynamically at the center of the air cap and at the air horns of the spray system.

#### D.1.2 Preventive Maintenance Plan [326 IAC 2-7-4(c)(9)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for this facility and any control devices.

#### Particulate Matter (PM) [326 IAC 6-3-2(c)]

326 IAC 6-3-2 (Process Operations)

The particulate matter (PM) overspray from this paint booths described above, shall be limited by the following:

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Interpolation and extrapolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

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 $E = 4.10 \ P_{0.67}$  where E =rate of emission in pounds per hour and P =process weight rate in tons per hour

#### D.1.4 Wood Furniture NESHAP [40 CFR 63, Subpart JJ]

- (a) The wood furniture coating operation is subject to the National Emission Standards for Hazardous Air Pollutants (NESHAP), 326 IAC 20-14, (40 CFR 63, Subpart JJ), with a compliance date of December 7, 1998.
- (b) Pursuant to 40 CFR 63, Subpart JJ, the wood furniture coating operations shall comply with the following conditions:
  - (1) Limit the Volatile Hazardous Air Pollutants (VHAP) emissions from finishing operations as follows:
    - (A) Achieve a weighted average volatile hazardous air pollutant (VHAP) content across all coatings of one (1.0) pound VHAP per pound solids; or
    - (B) Use compliant finishing materials in which all stains, washcoats, sealers, topcoats, basecoats and enamels have a maximum VHAP content of one (1.0) pound VHAP per pound solid, as applied. Thinners used for on-site formulation of washcoats, basecoats, and enamels have a three percent (3.0%) maximum VHAP content by weight. Solvent and thinner mixtures used for other purposes have a ten percent (10.0%) maximum VHAP content by weight; or
    - (C) Use a control device to limit emissions to one (1.0) pound VHAP per pound solids; or
    - (D) Use a combination of (A), (B), and (C).
  - (2) Limit VHAP emissions contact adhesives as follows:
    - (A) For foam adhesives used in products that meet the upholstered seating flammability requirements, the VHAP content shall not exceed 1.8 for pound VHAP per pound solids.
    - (B) For all other contact adhesives (except aerosols and contact adhesives applied to nonporous substrates) the VHAP content shall not exceed one (1.0) pound VHAP per pound solids.
    - (C) Use a control device to limit emissions to one (1.0) pound VHAP per pound solids.
  - (3) The strippable spray booth material shall have a maximum VOC content of eight-tenths (0.8) pounds VOC per pound solids.

A copy of this rule is enclosed.

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#### Work Practice Standards [40 CFR 63.803]

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The owner or operator of an affected source subject to this subpart shall prepare and maintain a written work practice implementation plan within sixty (60) calendar days after the compliance date. The work practice implementation plan must define environmentally desirable work practices for each wood furniture manufacturing operation and at a minimum address each of the following work practice standards as defined under 40 CFR 63.803:

- (a) Operator training course.
- (b) Leak inspection and maintenance plan.
- (c) Cleaning and washoff solvent accounting system.
- (d) Chemical composition of cleaning and washoff solvents.
- (e) Spray booth cleaning.
- (f) Storage requirements.
- Conventional air spray guns shall only be used under the circumstances defined under 40 CFR (g) 63.803(h).
- (h) Line cleaning.
- (i) Gun cleaning.
- (j) Washoff operations.
- (k) Formulation assessment plan for finishing operations.

#### **Compliance Determination Requirements**

#### D.1.6 Testing Requirements [326 IAC 2-7-6(1)]

- Pursuant to 40 CFR 63, Subpart JJ, if the Permittee elects to demonstrate compliance using 63.804 (a)(3) or 63.804(c)(2) or 63.804(d)(3) or 63.804(e)(2), performance testing must be conducted in accordance with 40 CFR 63, Subpart JJ and 326 IAC 3-6.
- (b) If the OAM requests, compliance with the limits specified in conditions D.1.4 shall be determined by performance tests conducted in accordance with Section C-Performance Testing. This does not preclude testing requirements on the facility under 326 IAC 2-7-5 and 326 IAC 2-7-6.

#### D.1.7 HAP Content

Pursuant to 40 CFR 63, Subpart JJ, an Initial Compliance Report must be submitted within sixty (60) calendar days following the compliance date specified in Condition D.1.4 and a Continuous Compliance Demonstration Report must be submitted within thirty (30) days following every six (6) month period, thereafter.

#### Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

#### Compliance monitoring

When the surface coating booths are in operation the filters and baffles shall be operating at all times.

#### D.1.9 Monitoring

- Daily inspections shall be performed to verify the placement, integrity and particle loading of the filters. To monitor the performance of the dry filters, daily observations shall be made of the overspray from the surface coating booth stack (S2, S3, S4, SNEW4, S5, S6 and stack) while one or more of the booths are in operation. The Compliance Response Plan shall be followed whenever a condition exists which should result in a response step. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Failure to Take Response Steps, shall be considered a violation of this permit.
- (b) Weekly inspections shall be performed of the coating emissions from the stack and the presence of overspray on the rooftops and the nearby ground. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when a noticeable change in overspray emission, or evidence of overspray emission is observed.

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The Compliance Response Plan shall be followed whenever a condition exists which should result in a response step. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Failure to Take Response Steps, shall be considered a violation of this permit.

(c) Additional inspections and preventive measures shall be performed as prescribed in the Preventive Maintenance Plan.

#### Recording Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

#### D.1.10 Record Keeping Requirements

- (a) To document compliance with Condition D 1.9 and 1.10, the permittee shall maintain a log of daily overspray observations, daily and weekly inspections, and those additional inspections prescribed by the Preventative Maintenance Plan.
- (b) To document compliance with Condition D.1.4, the Permittee shall maintain records in accordance with (1) through (5) below. Records maintained for (1) through (5) shall be complete and sufficient to establish compliance with the VHAP usage limits established in Condition D.1.4.
  - (1) Certified Product Data Sheet for each finishing material, thinner, contact adhesive and strippable booth coating.
  - (2) The HAP content in pounds of VHAP per pounds of solids, as applied, for all finishing materials and contact adhesives used.
  - (3) The VOC content in pounds of VOC per pounds of solids, as applied, for each strippable coating used.
  - (4) The VHAP content in weight percent of each thinner used.
  - (5) Copies of the averaging calculations for each month as well as the data on the quantity of coating and thinners used to calculate the average.
- (c) To document compliance with Condition D.1.5, the Permittee shall maintain records demonstrating actions have been taken to fulfill the Work Practice Implementation Plan.
- (d) All records shall be maintained in accordance with Section C General Record Keeping Requirements, of this permit.

#### D.1.11 Reporting Requirements

- (a) An Initial Compliance Report to document compliance with Condition D.1.4, and the Certification form, shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, within sixty (60) calendar days following the compliance date of December 7, 1998. The initial compliance report must include data from the entire month that the compliance date falls.
- (b) A semi-annual Continuous Compliance Report to document compliance with Condition D.1.4, and the Certification form, shall be submitted to the address listed in Section C -General Reporting Requirements of this permit, within thirty (30) days after the end of the six (6) months being reported.

The six (6) month periods shall cover the following months:

- (1) January 1 through June 30.
- (2) July 1 through December 31.

## Indiana Department of Environmental Management Office of Air Management

Technical Support Document (TSD) for a Part 70 Source Modification

#### **Source Background and Description**

Source Name: Creative Wood Products, Inc.

Source Location: 712 North Bowen Avenue, Bremen, Indiana 46506

County: Marshall SIC Code: 3714

Operation Permit No.: T 099-7526-00047
Operation Permit Issuance Date: September 24, 1998
Significant Source Modification No.: 099-12557-00047

Permit Reviewer: ERG/MP

The Office of Air Management (OAM) has reviewed a modification application from Creative Wood Products, Inc., relating to the construction of the following emission units and pollution control devices:

- (a) One (1) surface coating booth, identified as PB2, having a maximum throughput of 3 units per day, application method is HVLP, using dry filters as control, and exhausting to stack S2.
- (b) One (1) surface coating booth, identified as PB3, having a maximum throughput of 3 units per day, application method is HVLP, using dry filters as control, and exhausting to stack S3.
- (c) One (1) surface coating booth, identified as PB4, having a maximum throughput of 3 units per day, application method is HVLP, using dry filters as control, and exhausting to stack SNEW4.
- (d) One (1) surface coating booth, identified as PB5, having a maximum throughput of 3 units per day, application method is HVLP, using dry filters as control, and exhausting to stack S5.
- (e) One (1) surface coating booth, identified as PB6, having a maximum throughput of 3 units per day, application method is HVLP, using dry filters as control, and exhausting to stack S6.

The source is also removing eight (8) existing surface coating booths - Standard - 1 A/B, Standard - 2 A/B, Ultra -3 A/B, Standard 6A, and Ultra 6B.

#### History

On August 7, 2000, Creative Wood Products, Inc. submitted an application to the OAM requesting to add five (5) new surface coating booths to their existing plant. Creative Wood Products, Inc., was issued a Part 70 permit on September 24, 1998.

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#### **Enforcement Issue**

There are no enforcement actions pending.

#### **Stack Summary**

| Stack ID | Operation   | Height<br>(feet) | Diameter<br>(feet) | Flow Rate (acfm) | Temperature (°F) |
|----------|-------------|------------------|--------------------|------------------|------------------|
| S2       | Paint Booth | 9                | 2.5                | 12,190           | Ambient          |
| S3       | Paint Booth | 9                | 2.5                | 12,190           | Ambient          |
| S4       | Paint Booth | 9                | 2.5                | 12,190           | Ambient          |
| S5       | Paint Booth | 9                | 2.5                | 12,190           | Ambient          |
| S6       | Paint Booth | 9                | 2.5                | 12,190           | Ambient          |

#### Recommendation

The staff recommends to the Commissioner that the Part 70 Significant Source Modification be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An application for the purposes of this review was received on August 7, 2000.

#### **Emission Calculations**

See Appendix A of this document for detailed emissions calculations (Appendix A, pages 1 and 2).

#### **Potential To Emit of Modification**

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as "the maximum capacity of a stationary source to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA."

This table reflects the PTE before controls. Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit.

| Pollutant       | Potential To Emit (tons/year) |
|-----------------|-------------------------------|
| PM              | 2.5                           |
| PM-10           | 2.5                           |
| SO <sub>2</sub> | 0                             |
| VOC             | 26.0                          |
| CO              | 0                             |
| NO <sub>x</sub> | 0                             |

| HAP's        | Potential To Emit (tons/year) |
|--------------|-------------------------------|
| Methanol     | 0.17                          |
| Ethylbenzene | 0.08                          |
| Formaldehyde | 0.004                         |
| Toluene      | 0.02                          |
| Xylene       | 0.41                          |
| TOTAL        | 0.67                          |

#### **Justification for Modification**

The Part 70 Operating permit is being modified through a Part 70 Significant Source Modification. This modification is being performed pursuant to 326 IAC 2-7-10.5(f) as the modification has a potential to emit greater than twenty-five (25) tons per year of VOC.

#### **County Attainment Status**

The source is located in Marshall County.

| Pollutant       | Status     |
|-----------------|------------|
| PM-10           | attainment |
| SO <sub>2</sub> | attainment |
| NO <sub>2</sub> | attainment |
| Ozone           | attainment |
| СО              | attainment |
| Lead            | attainment |

- (a) Volatile organic compounds (VOC) and oxides of nitrogen (NOx) are precursors for the formation of ozone. Therefore, VOC and NO<sub>x</sub> emissions are considered when evaluating the rule applicability relating to the ozone standards. Marshall County has been designated as attainment or unclassifiable for ozone. Therefore, VOC and NOx emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.
- (b) Marshall County has been classified as attainment or unclassifiable for PM-10, SO<sub>2</sub>, NO<sub>2</sub>,
   CO, and lead. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.

#### **Source Status**

Existing Source PSD Definition (emissions after controls, based upon 8760 hours of operation per year at rated capacity and/or as otherwise limited):

| Pollutant       | Emissions (tons/year)           |
|-----------------|---------------------------------|
| PM              | greater than 100, less than 250 |
| PM-10           | greater than 100, less than 250 |
| SO <sub>2</sub> | less than 100                   |
| VOC             | greater than 100, less than 250 |
| СО              | less than 100                   |
| NOx             | less than 100                   |

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(a) This existing source is not a major stationary source because no attainment regulated pollutant is emitted at a rate of 250 tons per year or more, and it is not one of the 28 listed source categories.

(b) These emissions are based upon the TSD for Operating Permit No. T 099-7526-00047.

#### **Potential to Emit of Modification After Issuance**

The table below summarizes the potential to emit, reflecting all limits, of the significant emission units after controls. The control equipment is considered federally enforceable only after issuance of this Part 70 source modification.

|                                   |     | Potential to Emit (tons/year)                        |  |    |  |  |      |  |  |  |  |  |
|-----------------------------------|-----|--|--|----|--|--|------|--|--|--|--|--|
| Process/facility                  | PM  | PM PM-10 SO <sub>2</sub> VOC CO NO <sub>X</sub> HAPs |  |    |  |  |      |  |  |  |  |  |
| Surface Coating<br>Booths PB2-PB6 | 2.5 | 2.5  |  | 26 |  |  | 0.67 |  |  |  |  |  |

This modification to an existing minor stationary source is not major because the emissions increase is less than the PSD significant levels. Therefore, pursuant to 326 IAC 2-2, and 40 CFR 52.21, the PSD requirements do not apply.

#### **Federal Rule Applicability**

- (a) There are no New Source Performance Standards (NSPS) (326 IAC 12 and 40 CFR Part 60) applicable to this proposed modification.
- (b) The wood furniture coating operation is subject to the National Emission Standards for Hazardous Air Pollutants (NESHAP), 326 IAC 20-14, (40 CFR 63, Subpart JJ), because Creative Wood Products, Inc., manufactures kitchen cabinetry (a wood furniture component) and total HAPs emissions are greater than 25 tons per year. Pursuant to 40 CFR 63, Subpart JJ and 326 IAC 20-14, the wood furniture coating operation is subject to the following conditions:
  - (1) The source shall limit the volatile hazardous air pollutants (VHAP) emissions from finishing operations as follows:
    - (A) Achieve a weighted average volatile hazardous air pollutant (VHAP) content across all coatings of one (1.0) pound VHAP per pound solids; or
    - (B) Use compliant finishing materials in which all stains, washcoats, sealers, topcoats, basecoats and enamel have a maximum VHAP content of one (1.0) pound VHAP per pound solid, as applied. Thinners used for on-site formulation of washcoats, basecoats, and enamels have a three percent (3.0%) maximum VHAP content by weight. Solvent and thinner mixtures used for other purposes have a ten percent (10%) maximum VHAP content by weight; or
    - (C) Use a control device to limit emissions to one (1.0) pound VHAP per pound solids; or
    - (D) Use a combination of (A), (B), and (C).

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(2) The source shall limit VHAP emissions contact adhesives as follows:

- (A) For foam adhesives used in products that meet the upholstered seating flammability requirements, the VHAP content shall not exceed 1.8 pound VHAP per pound solids.
- (B) For all other contact adhesives (except aerosols and contact adhesives applied to nonporous substrates) the VHAP content shall not exceed one (1.0) pound VHAP per pound solids; or
- (C) Use a control device to limit emissions to one (1.0) pound VHAP per pound solids.
- (3) The strippable spray booth material shall have a maximum VOC content of eight-tenths (0.8) pounds VOC per pound solids.

#### State Rule Applicability - Individual Facilities

#### 326 IAC 5-1 (Visible Emissions Limitations)

Pursuant to 326 IAC 5-1-2 (Visible Emissions Limitations), except as provided in 326 IAC 5-1-3 (Temporary Exemptions), visible emissions shall meet the following, unless otherwise stated in this permit:

- (a) Visible emissions shall not exceed an average of forty percent (40%) opacity in twenty-four (24) consecutive readings as determined by 326 IAC 5-1-4.
- (b) Visible emissions shall not exceed sixty percent (60%) opacity for more than a cumulative total of fifteen (15) minutes (sixty (60) readings) in a six (6) hour period.

#### 326 IAC 6-3-2 (Process Operations)

The particulate matter (PM) overspray from the booths PB2 through PB6 shall be limited by the following:

### 326 IAC 6-3 (Process Operations)

(a) Each surface coating booth shall comply with 326 IAC 6-3-2(c) using the following equation:

The PM overspray from the coating booth shall not exceed the pound per hour emission rate established as E in the following formula:

Interpolation and extrapolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by using the equation:

 $E = 4.10 P^{\circ}0.67$  Where E =rate of emission in pounds per hour; and P =process weight rate in tons per hour

- (b) The dry filters for particulate matter overspray control shall be in operation at all times when the surface coating booth is in operation to assure compliance with this rule.
- (c) Daily inspections shall be performed to verify the placement, integrity and particulate loading of the filters.

#### 326 IAC 8-2-12 (Wood Furniture and Cabinet Coating

Pursuant to 326 IAC 8-2-12 (Wood Furniture and Cabinet coating), the surface coatings applied to wood furniture and/or wood components shall utilize one or more of the following application methods:

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Airless Spray Application Electrostatic Spray Application Heated Airless Spray Application Brush or Wipe Application High Volume Low Pressure HVLP Air-Assisted Airless Spray Application Electrostatic Bell or Disc Application Roller Coating Dip-and-drain Application Aerosol Spray Cans

High volume low pressure spray is an acceptable alternative application of air-assisted airless spray. High volume low pressure (HVLP) spray means technology used to apply coating to a substrate by means of coating application equipment which operates between one-tenth (0.1) and ten (10) pounds per square inch gauge (psig) air pressure measured dynamically at the center of the air cap and at the air horns of the spray system.

Creative Wood Products, Inc., is in compliance with this rule since air-assisted airless and HVLP are being utilized to apply coatings to wood furniture and/or wood components.

#### **Compliance Requirements**

Permits issued under 326 IAC 2-7 are required to ensure that sources can demonstrate compliance with applicable state and federal rules on a more or less continuous basis. All state and federal rules contain compliance provisions, however, these provisions do not always fulfill the requirement for a more or less continuous demonstration. When this occurs IDEM, OAM, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-7-5. As a result, compliance requirements are divided into two sections: Compliance Determination Requirements and Compliance Monitoring Requirements.

Compliance Determination Requirements in Section D of the permit are those conditions that are found more or less directly within state and federal rules and the violation of which serves as grounds for enforcement action. If these conditions are not sufficient to demonstrate continuous compliance, they will be supplemented with Compliance Monitoring Requirements, also Section D of the permit. Unlike Compliance Determination Requirements, failure to meet Compliance Monitoring conditions would serve as a trigger for corrective actions and not grounds for enforcement action. However, a violation in relation to a compliance monitoring condition will arise through a source's failure to take the appropriate corrective actions within a specific time period.

The surface coating booths have applicable compliance monitoring conditions as specified below:

- (a) Daily inspections shall be performed to verify the placement, integrity and particle loading of the filters. To monitor the performance of the dry filters, daily observations shall be made of the overspray while one or more of the booths are in operation. The Compliance Response Plan shall be followed whenever a condition exists which should result in a response step.
- (b) Weekly inspections shall be performed of the coating emissions from the stack and the presence of overspray on the rooftops and the nearby ground. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an overspray emission, evidence of overspray emission, or other abnormal emission is observed. The Compliance Response Plan shall be followed whenever a condition exists which should result in a response step.

#### Conclusion

The construction of this proposed modification shall be subject to the conditions of the attached proposed Part 70 Significant Source Modification No. 099-12557-00047.

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Appendix A: Emissions Calculations VOC and Particulate From Surface Coating Operations

Company Name: Creative Wood Products, Inc.
Address City IN Zip: PO Box 112, Bremen, IN 46506

CP: 099-12557
PIt ID: 099-00047
Reviewer: ERG/MP
Date: 02-Oct-2000

| Material            | Density<br>(Lb/Gal) | Weight %<br>Volatile (H20 &<br>Organics) | Weight %<br>Water | Weight %<br>Organics | Volume %<br>Water | Volume %<br>Non-Volatiles<br>(solids) | Gal of Mat.<br>(gal/unit) | Maximum<br>(unit/hour) | Pounds VOC<br>per gallon of<br>coating less<br>water | Pounds VOC<br>per gallon of<br>coating |        |         | Potential VOC tons per year | Particulate<br>Potential<br>(ton/yr) | lb VOC/gal<br>solids | Transfer<br>Efficiency |
|---------------------|---------------------|--|-------------------|----------------------|-------------------|---------------------------------------|---------------------------|------------------------|--|--|--------|---------|-----------------------------|--------------------------------------|----------------------|------------------------|
| Autumn Haze (stain) | 6.50                | 96.11%                                   | 0.0%              | 96.1%                | 0.5%              | 2.49%                                 | 2.000000                  | 0.250                  | 6.2785   | 6.2471                                 | 3.1235 | 74.9650 | 13.6811                     | 0.1662                               | 250.48               | 70%                    |
| Sealer              | 7.61                | 68.13%                                   | 0.0%              | 68.1%                | 0.0%              | 23.49%                                | 2.000000                  | 0.125                  | 5.1847   | 5.1847                                 | 1.2962 | 31.1082 | 5.6772                      | 0.7967                               | 22.07                | 70%                    |
| Topcoat             | 8.16                | 56.40%                                   | 0.0%              | 56.4%                | 0.0%              | 35.20%                                | 2.000000                  | 0.125                  | 4.6022   | 4.6022                                 | 1.1506 | 27.6134 | 5.0395                      | 1.1687                               | 13.07                | 70%                    |
| Catalyst            | 8.98                | 42.43%                                   | 0.9%              | 41.6%                | 0.9%              | 42.43%                                | 0.060000                  | 0.250                  | 3.7686   | 3.7339                                 | 0.0560 | 1.3442  | 0.2453                      | 0.1019                               | 8.80                 | 70%                    |
| Van Dyke Glaze      | 8.10                | 60.48%                                   | 0.5%              | 60.0%                | 0.5%              | 2.49%                                 | 0.500000                  | 0.125                  | 4.8812   | 4.8568                                 | 0.3035 | 7.2851  | 1.3295                      | 0.2629                               | 194.74               | 70%                    |

State Potential Emissions Add worst case coating to all solvents 5.9298 142.3160 25.9727 2.4964

#### METHODOLOGY

Pounds of VOC per Gallon Coating less Water = (Density (lb/gal) \* Weight % Organics) / (1-Volume % water)

Pounds of VOC per Gallon Coating = (Density (lb/gal) \* Weight % Organics)

Potential VOC Pounds per Hour = Pounds of VOC per Gallon coating (lb/gal) \* Gal of Material (gal/unit) \* Maximum (units/hr)

Potential VOC Pounds per Day = Pounds of VOC per Gallon coating (lb/gal) \* Gal of Material (gal/unit) \* Maximum (units/hr) \* (24 hr/day)

Potential VOC Tons per Year = Pounds of VOC per Gallon coating (lb/gal) \* Gal of Material (gal/unit) \* Maximum (units/hr) \* (8760 hr/yr) \* (1 ton/2000 lbs)

Particulate Potential Tons per Year = (units/hour) \* (gal/unit) \* (lbs/gal) \* (1- Weight % Volatiles) \* (1-Transfer efficiency) \*(8760 hrs/yr) \* (1 ton/2000 lbs)

Pounds VOC per Gallon of Solids = (Density (lbs/gal) \* Weight % organics) / (Volume % solids)

Total = Sum of all coatings used

## Appendix A: Emissions Calculations HAPs From Adhesive Coating Operations

Company Name: Creative Wood Products, Inc.

Address City IN Zip: PO Box 112, Bremen, IN 46506

CP: 099-12557
PIt ID: 099-00047
Reviewer: ERG/MP
Date: 02-Oct-2000

| Material | Lbs of Mat.<br>(lbs/unit) | Maximum<br>(unit/year) | Weight %<br>Methanol | Weight %<br>Ethylbenzene | Weight %<br>Formaldehyde | Weight %<br>Toluene | Weight %<br>Xylene | Methanol<br>(tons/year) | Ethylbenzene<br>(tons/year) | Formaldehyde (tons/year) | Toluene<br>(tons/year) | Xylene<br>(tons/year) | Total HAPs<br>(tons/year) |
|----------|---------------------------|------------------------|----------------------|--------------------------|--------------------------|---------------------|--------------------|-------------------------|-----------------------------|--------------------------|------------------------|-----------------------|---------------------------|
| Sealer   | 2.000000                  | 1095.000               | 14.00%               | 1.00%                    | 0.24%                    | 2.00%               | 6.00%              | 0.15                    | 0.01                        | 0.003                    | 0.02                   | 0.07                  | 0.25                      |
| Topcoat  | 2.000000                  | 1095.000               |                      | 6.00%                    | 0.17%                    |                     | 31.00%             |                         | 0.07                        | 0.002                    |                        | 0.34                  | 0.41                      |
| Catalyst | 0.060000                  | 2190.000               | 19.00%               |                          |                          |                     |                    | 0.01                    |                             |                          |                        |                       | 0.01                      |

 State Potential Emissions
 0.17
 0.08
 0.004
 0.02
 0.41
 0.67

METHODOLOGY

Potential HAP Tons per Year = (Weight % HAP/100) \* lbs of Material (lbs/unit) \* Maximum (units/hr) \* (1 ton/2000 lbs)

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